CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY

The Department of Toxic Substances Control (DTSC) has completed the following document for this project in accordance with the California Environmental Quality Act (CEQA) [Pub. Resources Code, div. 13, § 21000 et seq] and accompanying Guidelines [Cal. Code Regs., tit. 14, § 15000 et seq].

PROJECT TITLE: Mojave Gunnery Range "C" Remedial Investigation/Feasibility Study/Removal Action Work Plan (RI/FS/RAW)		CALSTARS CODING: 101450-47
PROJECT ADDRESS: Between Mojave and California City	Partially California City	COUNTY: Kern
PROJECT SPONSOR: United States Army Corps of Engineers	CONTACT: Matthew Shun	PHONE: (213) 452-3976

APPROVAL ACTION UNDER CONSIDERATION BY DTSC:

☐ Initial Permit Issuance ☐ Permit Renewal ☐ Permit Modification ☐ Closure Plan
☐ Removal Action Workplan ☐ Remedial Action Plan ☐ Interim Removal ☐ Regulations
☒ Other (specify): Remedial Investigation/Feasibility Study/Removal Action Work Plan (RI/FS/RAW)

STATUTORY AUTHORITY:

☐ California H&SC, Chap. 6.5 ☒ California H&SC, Chap. 6.8 ☐ Other (specify):

DTSC PROGRAM/ ADDRESS: Office of Military Facilities 8800 Cal Center Dr Sacramento, CA 95826	CONTACT: Ed Walker	PHONE: (916) 255-4988

PROJECT DESCRIPTION:

The Department of Toxic Substances Control (DTSC) is considering approval of a Remedial Investigation/Feasibility Study/Removal Action (RI/FS/RA) Work Plan for the Former Mojave Gunnery Range "C" proposed by the United States Army Corps of Engineers (U.S. ACE). The RI/FS/RAW would investigate the Munitions Response Areas (MRA) with a comprehensive sampling methodology consisting of visual, geophysical, and intrusive investigations to characterize where Munitions and Explosives of Concern (MEC) activities occurred and define Munitions Response Sites (MRS) within MRA. The Draft Final Former Mojave Gunnery Range "C" RI/FS/RA Work Plan is incorporated by reference.

Location: The Mojave Gunnery Range C (MGRC) is located approximately 4-miles east of Mojave, California and encompasses the southwest corner of California City, California, as shown in the attached map. The MGRC comprised approximately 21,750 acres. See Attachment A located at the end of this document. Investigation areas are shown on Figures 6-7 and 6-8 also located at the end of this document.

History: On 19 August 1944 the Department of the Navy took possession of the land that would comprise MGRC. During World War II these lands were used as an air-to-ground training area with six reported stationary ground targets and one reported mobile target. After the war MGRC was used for testing and evaluation of pilot-less aircraft by both the Naval Air Station (NAS) Mojave and the Army. The Marines returned to Mojave in 1951 and closed the airfield during which time the Marine Corps terminated the leases for MGRC effective 31 December 1951. Ten MRA have been identified for investigation during the MGRC RI/FS/RAW based on records reviews and site visits. A brief discussion of each MRA follows below. Refer to Figure 1-2, attached at the end of this document, for MRA locations.

MRA-01, (Areas A and B): MRA-01 is a cluster of targets (Area A) and buffer area (Area B) encompassing 2,906 acres of land. The occurrence of this target and buffer area within private land creates a substantial potential for public exposure to MEC originating from bombing targets. MRA-01 has confirmed MEC presence. Munitions confirmed are the 20mm target practice (TP) projectiles, MK 15 100-lb practice bombs, AN-MK23 3-lb. practice bombs, and 2.75 High Explosive (HE) Folding Fin Aerial Rockets (FFAR), and 2.75 Inert FFAR have been

confirmed on this MRA.

MRA-02, (Areas C and D): MRA-02 is suspected to have been a convoy target (Area C) made up of tanks and vehicles due to the vehicle debris located in the area and a buffer area (Area D) encompassing 828 acres. The occurrence of this target and buffer area within private land creates a substantial potential for public exposure to MEC originating from bombing targets. MRA-02 has confirmed MEC presence. Munitions confirmed are evidence of high explosive bombs and rockets.

MRA-03, (Area E): MRA-03 is a former 20-mm aircraft strafing range encompassing 26 acres. MRA-03 has potential MEC presence. The occurrence of this target within private land creates a substantial potential for public exposure to MEC originating from strafing targets. Munitions confirmed are the 20 mm TP projectiles.

MRA-04, (Areas F and G): MRA-04 is a former bombing target (Area F) and buffer area (Area G) encompassing 499 acres). The occurrence of this target and buffer area on private land creates a substantial potential for public exposure to MEC originating from bombing targets. MRA-04 has confirmed MEC presence. Munitions confirmed are the AN-MK23 3-lb practice bombs, 20mm TP projectiles; and 50 cal small arms ammunition.

MRA-05, (Areas H and I): MRA-05 is a former rocket target (Area H) and a buffer area (Area I); encompassing 289 acres. The occurrence of this target and buffer area within private land creates a substantial potential for public exposure to MEC originating from rocket targets. MRA-05 has confirmed MEC presence. Munitions confirmed are the 2.25-inch practice rockets (SCAR), 2.75-inch FFAR, and 20mm TP projectiles. An intact VS-50 anti-personnel landmine was also located but it is believed to have been a result of an inadvertent drop resulting from mistaken coordinates with an adjacent range.

MRA-06, (Area J): MRA-06 is a suspected bombing target encompassing 31acres. No evidence of munitions usage was encountered during previous site visits. This MRA is considered to have no MEC presence.

MRA-07, (Area K): MRA-07 is a suspected bombing target encompassing 31 acres. No evidence of munitions usage was encountered during previous site visits. This MRA is considered to have no MEC presence.

MRA-08, (Aerial Photo Analysis [APA] areas 5 and 6): APA Areas 5 and 6 were described in the APA Addendum as “Target With Concentric Rings Measuring 100 And 250 Feet In Diameter” The area the targets were reported to be approximately 2 acres each. During the visual inspection of the area, 2.25 rocket igniter leads and water/sand filled practice bomb debris were observed throughout the areas. After analysis of the data it was determined that APA Areas 5 and 6 may be an indication of a MRA. APA Areas 5 and 6 were combined due to their close proximity and recommended as additional an MRA with the addition of a 150 foot buffer around the 250 foot circles, and designated as MRA-08. The area of the resultant MRA-08 is approximately 16 acres. The occurrence of this target on private property creates a substantial potential for public exposure to MEC originating from this target.

MRA-09, (APA Area C): APA Area C was described in the APA Addendum as “Cleared Areas” encompassing approximately 57 acres. During the visual inspection of the area, bomb fragments were observed throughout the entire area, along with .50 cal cartridge cases, links and projectiles, 2.25 rocket igniter leads and water/sand filled practice bomb debris. After analysis of the data it was determined that APA Area C may be an indication of a MRA. APA Area C was recommended as additional an MRA with 1500 foot radius from center of apparent target, and was designated as MRA-09. The area of the resultant MRA-09 is approximately 163 acres. The occurrence of this target on private property creates a substantial potential for public exposure to MEC originating from this target.

MRA-10 (APA Areas E, E1, and E2): Area E was described in the APA Addendum as “Hill 2443 In Section 31 T12n, R10w” encompassing approximately 39 acres. During the visual inspection of the area, a large amount of bomb fragments and lighter fragments representative of a target were observed. Rock similar to that used to mark other MGRC targets, was observed on the hill and thought to have been used as a target marker. After analysis of the data it was determined that APA Areas E/E1/E2 may be an indication of a MRA. APA Areas

E/E1/E2 were recommended as additional an MRA with 1500 foot radius from center of apparent target. This was designated as MRA-10. The area of the resultant MRA-10 is approximately 163 acres. The occurrence of this target on private property creates a substantial potential for public exposure to MEC originating from this target.

Project Activities: The RI/FS/RAW approach consists of the use of surface visual surveys (SVS) combined with subsurface digital geophysical mapping (DGM) to characterize the site. MARRS Services Inc. (MARRS) proposes a dynamic approach to the MGRC RI/FS/RAW based on the recommended minimum DGM sampling with a Right-of-Entry (ROE) driven distribution to accomplish the investigation. Within this approach, the following steps will be used to characterize this site:

• Review of existing documents such as the Archives Search Report Findings for the Former Mojave Gunnery Range "C" and associated Aerial Photo Analysis (APA) Addendum combined with site visits to develop the MGRC Conceptual Site Model.

• Performance of a total-coverage surface visual survey of Aerial Photo Analysis (APA) features outside of the Archives Search Report (ASR)-defined targets, to evaluate MEC / munitions debris (MD) presence, and define these additional areas as MRA, areas needing additional evaluation or risk management or dismiss area as not being an MEC area or area of concern.

• Division of MGRC into management grids and sectors within the project Geographic Information System (GIS), to allow management and analysis of RI/FS/RAW data throughout the project.

• Development and maintenance of a "ROE" program. The ROE program will be used to request the legal ROE for all properties within the MGRC. A layer within the project GIS will be used to track the ROE responses, access agreements, and visual representation of areas with access agreements to show where field teams can perform characterization actions.

• Perform a site-specific Geophysical Prove-out (GPO) to test proposed geophysical equipment and techniques for use during the RI/FS/RAW.

• Development of a RI/FS/RA Work Plan using information gained during review of archive data, site visit, GPO and input/information resulting from the MGRC Technical Project Planning (TPP) meetings in accordance with project Right of Entries (ROEs).

• Perform a surface visual survey/geophysical investigation of munition response areas, (ASR)-defined targets and associated buffer areas to evaluate the extent of MEC/MD concentration and allow characterization within the RI/FS/RAW. Project activities will also include the following:

- In Investigation, by excavation with hand tools of a number of individually identified subsurface MEC/anomalies;
- Treatment of collected items, which may include MEC open detonation or within a pit; and
- Transportation of equipment.

Geophysical surveys will be performed on noncontiguous roughly parallel transects to collect subsurface data across all MRA areas. Transect paths have been selected to facilitate avoidance of sensitive natural and cultural resources as well as avoidance of natural barriers and suspected surface MEC hazards. All geophysical data will be acquired using man-portable land based detector systems.

• Report the findings in a RI/FS/RAW report with follow-on Proposed Plan and Decision Documents, as applicable.

The project is anticipated to begin in March 2008 and be completed by June 2008.

ENVIRONMENTAL IMPACT ANALYSIS:

1. Aesthetics

- Project Activities Likely to Create an Impact:
- In Investigation, by excavation with hand tools of a number of individually identified subsurface MEC/anomalies;

- Treatment of collected items, which may include MEC open detonation or within a pit; and
- Transportation of equipment.

Description of Baseline Environmental Conditions:
The Mojave Gunnery Range "C" is located on a level plain in what is considered to be the high basin of the Mojave Desert, sometimes referred to as the Antelope Valley. Less than a mile to the west is the Tehachapi Mountain Range, and the nearest named feature in that range is the Horned Toad Hills, which are northwest of the site. Ground cover is limited, with scattered grasses, sagebrush, Joshua trees and mesquite.

Analysis as to whether or not project activities would:

a. Have a substantial adverse effect on a scenic vista.

Impact Analysis:
MEC detonations and intrusive investigations could cause temporary ground/surface soil disturbances. Although temporary disturbances due to intrusive investigation and intentional detonations may occur excavations would be made with hand tools and would be limited in number and size. As a project control, activities would include avoidance of sensitive species and restoration activities would include replacement of topsoil with original vegetation to the extent allowed by terrain. Long term impacts would not occur. Therefore, the project would not significantly impact the Site aesthetics, and the overall Site character would remain the same. The project Site is not located within a scenic vista.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.

Impact Analysis:
Trees, rock outcrops, and historic buildings will be avoided and left undisturbed. Project Activities are over a mile from the nearest highway (Highway 58).

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Substantially degrade the existing visual character or quality of the site and its surroundings.

Impact Analysis:
There will be very few excavations per an acre. Each excavation will be made with hand tools and likely be less then a cubic yard. Excavations will be immediately backfilled after anomaly identification.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

d. Create a new source of substantial light of glare that would adversely affect day or nighttime views in the area.

Impact Analysis:
There are no project aspects that would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
Personal observation, Mr. Ed Walker, Project Manager.

2. Agricultural Resources

Project Activities Likely to Create an Impact:
None.

Description of Baseline Environmental Conditions:
The site consists primarily of Garlock loamy sand is poorly suited for crops or as a wildlife habitat. A small portion of the land is used for residential housing, Six sections are currently used as an automobile test track, and the remainder is open and used primarily for off-road recreation by local residents and seasonal sheep grazing. Therefore, no further analysis of agricultural resources is deemed necessary.

Analysis as to whether or not project activities would:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Impact Analysis:
No activities in the proposed project will impact or convert Farmland.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Conflict with existing zoning or agriculture use, or Williamson Act contract.

Impact Analysis:
No activities in the proposed project will conflict with existing zoning or agriculture use, or Williamson Act contract.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

Impact Analysis:
The proposed project is an investigation of the site and could not directly result in conversion of Farmland, to non-agricultural uses.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

3. Air Quality

Project Activities Likely to Create an Impact:

- Investigation, by excavation with hand tools of a number of individually identified subsurface MEC/anomalies;
- Treatment of collected items, which may include MEC open detonation or within a pit; and
- Transportation of equipment
- Movement of support vehicles to and from the site.

Description of Baseline Environmental Conditions:
Mojave Gunnery Range "C" is located in an arid region. The climate is characterized by hot summers and cool winters. The region is surrounded by several mountain ranges that greatly limit precipitation. The air quality is influenced by mountain passes that help transport some air pollutants into the region. Temperature data from nearby Edwards AFB indicate average annual precipitation of 12.4 centimeters (4.9 inches) and annual average temperature of 17 degrees Celsius 62 degrees Fahrenheit. For January, the daily mean high and low temperatures are 14 and -0.6 degrees Celsius, 57 and 31 degrees Fahrenheit respectively. For July, the daily mean high and low temperatures are 37 and 19 degrees Celsius, 98and 66 degrees Fahrenheit, respectively. The prevailing winds are from the southwest. Winds are strongest in the spring and summer, and are calm during the fall and winter.

The California Air Resource Board has delegated responsibility for regulating stationary emission sources to local air agencies. The Mojave Gunnery Range "C" is located within the Kern County Air Pollution Control District (KCAPCD). Eastern Kern County is in Federal non-attainment (serious) and state non attainment moderate for ozone. (EPA, 2003b) In an effort to reach attainment status, KCAPCD has developed several planning documents including the Federal Ozone attainment Demonstration Plan (KCAPCD, 1994c), which have been approved by the USEPA and included in the California Ozone SIP. The documents outline baseline and future regional emission inventories, mandated emission reductions, and computer modeling to attain the Federal ozone standard. (Department of Defense [DoD], 2002a) Kern County has also developed the California Clean Air Act Kern County Ozone Air Quality Attainment Plan November 15, 2000). Table 3-6 indicates the attainment status of pollutants in the KCAPCD (Eastern County).

Table 3-6. KCAPCD (Eastern County) Attainment Status

Pollutant	California Standard	Federal Standard
Ozone	Non-attainment (moderate)	Non-attainment (serious)
Carbon Monoxide (CO)	Unclassified	Unclassified
Nitrogen dioxide (NO2)	Attainment	Unclassified
SO2	Attainment	Unclassified
Particulate Matter less than 10 microns in diameter (PM10)	Non-attainment	Unclassified
Persistent bioacumulative and toxic chemicals (PBT)	Attainment	Attainment
Particulate Matter less than 2.5 microns in diameter (PM2.5)	Not applicable	Not determined10
Hydrogen sulfide (HS)	Attainment	Not applicable
Sulfates	Attainment	Not applicable

Source: California Environmental Protection Agency, Air Resources Board, 2000, EPA, 2003b and Kern County, 2003b

Analysis as to whether or not project activities would:

a. Conflict with or obstruct implementation of the applicable air quality plan.

Impact Analysis:
Excavation by hand of anomalies would generate less dust than that caused by the recreational activities and vehicular traffic around the project area. Very small amounts of fugitive dust would be generated due to excavating ordnance. Open detonation of MEC/Unexploded Ordnance (UXO) items would also generate small quantities of dust. Both activities would involve a very confined area and occur for only a short period of time. No long-term pollution would be caused by the proposed activities. The gaseous products formed by the explosion are normal constituents of the atmosphere and are readily dispersed. No measurable effect on air quality would result from the explosive destruction of ordnance within the project area, by the use of either open detonation. Therefore, the project related impacts to air quality would be short-term and insignificant.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis:
To estimate the fugitive emissions from a detonation of MEC, information from the document, Prescribed Burn Work Plan for Inland Ranges at Fort Ord, Fort Ord, California (Harding Lawson Associates, 1997) was reviewed. For a blow-in-place detonation, less than 3 pounds of carbon monoxide (CO), approximately one pound of particulate matter and a negligible amount of nitrogen oxides (NOx) are estimated during a single event in which 1.25 pounds of C-4 explosive were used to ignite an accumulated 13.75 pounds of ordnance. The amounts of ambient air contaminants released from a one-time incidental detonation at the Fort Ord were found to be minimal in their impact to ambient air quality. In the event of an accidental detonation, toxic constituents of particulates released are not possible to predict. However, as stated previously, it is expected to be minimal because the total volume of PM10 would be small. Emissions from open detonation activities are not expected to be substantial, due to the limited size and number of treatment events.

Project controls will be employed to control dust emissions. These controls include driving any motorized vehicle used on site at a slow speed and digging only enough soil to uncover the contact or anomaly (MEC). The survey crews will drive no faster than 20 miles per hour along the dirt roads leading to the sites and will not leave established roadways.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Analysis:
Mojave Gunnery Range “C” is non-attainment status for inhalable particulate matter (PM10). Excavation activities will not generate significant amounts of dust. Excavation will be done with hand tools. Emissions from open detonation will not result in a cumulatively considerable net increase in any criteria pollutant, including PM10. Emissions from any open detonation activities would not be controlled, but would be relatively small due to the small size and number of individual munitions that may be found during the investigation. For fire suppression areas adjacent to open detonation, activities will be wetted; this will reduce the amount of dust created by any open detonation activities. Engineering controls, such as sandbags will be used where necessary to help minimize particle dispersion and the generation of dust created by open detonations.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

d. Expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis:
During the RI/FS/RAW areas with sensitive receptors will be avoided. It is also highly unlikely that substantial pollutant concentrations will be released during the Site Inspection.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Create objectionable odors affecting a substantial number of people.

Impact Analysis:
There will likely be a very small amount of items treated by detonation. The treatment of MEC items is not expected to create any objectionable odors. Emissions are minimal and the population in the and around the study area is minimal.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Result in human exposure to Naturally Occurring Asbestos (see also Geology and Soils, f.).

Impact Analysis:
According to the Department of Conservation, California Geological Survey map of asbestos in California, the project site is not located in a naturally-occurring asbestos area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

California Environmental Protection Agency, Air Resources Board, 2000, EPA, 2003b and Kern County, 2003b

California Department of Conservation web site:
http://www.consrv.ca.gov/CGS/minerals/hazardous_minerals/asbestos/index.htm

4. Biological Resources

Project Activities Likely to Create an Impact:

- Investigation, by excavation with hand tools of a number of individually identified subsurface MEC/anomalies;
- Treatment of collected items, which may include MEC open detonation or within a pit; and
- Transportation of equipment.

Description of Baseline Environmental Conditions:

The MGRC is within the Western portion of the Mojave Desert. The MGRC boundary encompasses much of the incorporated portions of the City of California City. Most of this area is privately owned but not developed and consists primarily of relatively flat creosote scrub community with some areas of Joshua tree woodland, and saltbush scrub communities. This area is disturbed through the existence of numerous unpaved roadways with extensive illegal dumping of a wide variety of materials. There are no wetlands or other waters of the United States.

Vegetation

The following is a list of common flora found within the Western Mojave Desert. These species could occur within the boundaries of the MGRC: saltbush (*Atriplex polycarpa*), creosote bush (*Larrea tridentata*), prickly pear cactus (*Opuntia sp*) Joshua tree (*Yucca brevifolia*), and various ephedras (*Ephedra* sp.).

Wildlife

The following is a list of common fauna found within the Western Mojave Desert, and these species could occur within the boundaries of the MGRC: desert iguana (*Dipsosaurus dorsalis*),sidewinder (*Crotalus cerastes*), California quail (*Callipepla californica*), Red-tailed hawk (*Buteo jamaicensis*), Common Raven (*Corvus corax*), coyote (*Canis latrans*), kit fox (*Vulpes macrotis*), bobcat (*Lynx rufus*), badger (*Taxidea taxus*), and black-tailed jackrabbit (*Lepus californicus*).

Potentially Sensitive Species

Attachment B provides state and federal threatened and endangered species that may be found within or adjacent to MGRC. Of primary concern is the desert tortoise (*Goperus agassizii*) a species listed as threatened by the USFWS and the CDFG. This species could occur throughout the MGRC as evidenced by the presence of burrows throughout much of the area that was observed during the site reconnaissance. This area had low to medium population density in the past, but it is likely that this population density has been substantially reduced due to disease, predation by ravens, domestic dogs, and from other human disturbances. The Mojave ground squirrel (*Spermophilus mohavensus*), state threatened species, also has a potential to occur throughout the MCRC area, but probably in low numbers and in isolated locations. The Red Rock tarplant (*Deinandra arida) a state rare species has a remote potential to occur in the eastern portion of the MGRC area. Attachment* B lists those plant and animal species considered sensitive by the CDFG or the California Native Plant Society (CNPS).

On October 15, 2007, California Department of Fish and Game (CDFG) Natural Diversity Database reports for the Sanborn and California City South quadrants were reviewed and listed the above-mentioned species within the general project area.

The CDFG has been consulted regarding the project, and the CDFG's comments from Beckye Stanton, Ph.D., Staff Toxicologist, and Ms. Vicki Lake, Staff Biologist, of the Office of Spill Prevention and Response, have been incorporated into the final RI/FS/RAW.

Analysis as to whether or not project activities would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis:

Section 7 of the ESA prohibits the take of listed species without an incidental take permit. Taking is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Under the terms of Section 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act, provided that such taking is in compliance with the incidental take statement. Because this project is being implemented under the CERCLA, only the procedural requirements (i.e., identification of federally listed species, the recognition of project related impacts to listed species, and the development of avoidance/minimization measures to those listed species) under Section 7 will need to be completed. Project controls included in the project RI/FS/RAW are designed to meet Section 7 procedural requirements.

General Protections

Biological monitors will be present for all project field activities. Daily and tailgate safety briefings will include reminders to perform tortoise checks and watch for Endangered and Threatened species on roads. Personnel

violating restrictions or exceeding project speed limits may be terminated from employment. In addition, the following provisions will be enforced during the project.

Trash removal will also be performed taking care not to adversely affect the project area. Site restoration will be performed to restore disturbed areas as close as possible to their original contours, soil strata, and compaction.

Intrusive Activities

Discrete points requiring investigation will be located within the survey transects. Biological monitors will be present during all project filed activities and survey each intrusive investigation location prior to excavation to determine whether sensitive species occur at or in close proximity to these sites and advise the work crews on how to best avoid and prevent an effect on these resources. Monitors will ensure areas are free from any plant or animal species prior to UXO being detonated. If species are present, a qualified, permitted biologist will temporarily re-locate species pursuant to federal and state requirements. If species cannot be re-located, blast and/or fragmentation mitigation procedures will be implemented to reduce and/or eliminate the possibility of damage or injury to the species.

Desert Tortoise

Impacts to this species will be minimized by avoiding both individuals and burrows of the species. The biological monitor will be experienced in assessment of desert tortoise and also trained in desert tortoise handling. The biologist will pre-survey the transect routes to identify burrows and live tortoises. Areas containing live tortoises will be flagged off and the field investigation teams will avoid the area. Areas containing potential tortoise burrows will also be avoided.

Areas where ground intrusive activities will take place will be surveyed again to assure that tortoise or tortoise burrows are not present. A monitor will observe the activities of the field investigation teams to assure that tortoises do not enter the work area. The monitor will also check under vehicles and equipment to assure that tortoises are not under the vehicle prior to movement of the vehicle or equipment. In this instance, tortoises will be relocated away from the immediate area.

The mitigation monitor will also be responsible for training of workers in the avoidance of impacts to the desert tortoise. This will include overall protection issue, checking under vehicles, safeguards when operating vehicles, and other activities such as avoiding littering and other activities to avoid attraction of ravens.

Mojave Ground Squirrel

There is a potential that the MEC operations at the MGRC may have the potential to impact the state threatened Mojave Ground Squirrel. This species may occur in colonies within the project area and is normally active only in spring and early summer. There is a potential that the surface visual surveys/DGM and intrusive investigations could impact this species. It is doubtful that individual ground squirrels will be visible during the survey. The biological monitor will identify potential concentrations of ground squirrel burrows and mark these areas for avoidance for both MEC surveys and ground disturbing activities.

Owls and Raptors

There is a potential that burrows of burrowing owls may be encountered during the surveys. Pre-surveys will be conducted for burrowing owls and any areas where burrowing owls are noted will be avoided by the surveys. Although it is unlikely that nesting raptors will be present in the area, any potential nesting areas will be identified and these areas avoided. Furthermore, any disturbance to identified raptor foraging areas will be minimized.

Listed and Sensitive Plant Species

The biological monitor will have the capability of identifying all defined sensitive plant species when identifying phenology is present and will be knowledgeable of general vegetation types associated with the regional area. If the biological monitor encounters a listed plant species within a work area, the species will be flagged and the field crew will be instructed to avoid the area. The biologist will designate clear ingress and egress routes to work sites in order to avoid impacts to sensitive plant species. No listed plant species will be removed or damaged as a result of project activities.

Additionally, project controls will be employed to control dust emissions. These controls include driving any motorized vehicle used on site at a slow speed and digging only enough soil to uncover the contact or anomaly (MEC). The survey crews will drive no faster than 15 miles per hour along the dirt roads leading to the sites and will not leave established roadways, thereby avoiding habitat areas. Wilderness designation will require the survey crews to leave the support vehicles outside the boundaries of the wilderness site and walk in to the site. All motorized equipment must be left outside the boundaries of these designated areas.

Avoidance for natural resources will be accomplished by two basic and interrelated methods. A) Research and Mapping will be the first methods used where natural resources are identified based on currently available information and transects are planned accordingly. B) On-site monitoring will be the second method (an ongoing method) and will include site-specific training and/or an on-site biologist and transects will be modified accordingly. ROE access will also constrain the final acquired paths. Additional transects or grids may be used to help answer specific questions about MEC contamination and concentration in narrower target areas or where data gaps are identified the post-processed data.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis:
Surveys that may be necessary within washes will be performed on foot. No parking will occur within washes. Vehicles may cross dry washes when traversing project roads, but will not be parked within washes. No fill materials will be discharged into washes. If hand excavation is found to be necessary within washes, the excavated material will be replaced within its original location immediately after removal.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Analysis:
There are no wetlands within the site according to aerial survey photo and National Wetlands Inventory review conducted by the USACE. Refer to the response to item b. above. Measures will be taken to prevent impacts to washes.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact Analysis:
The investigation will be conducted over a short period of time in small areas of the site and should have no significant effect on migration or nurseries.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Analysis:
Vegetation removal (trees and/or shrubs) will not be performed on the project site. Minimal vegetation impacts will occur if a contact or anomaly is located below ground surface at the base of a tree or shrub. Field crews will remove as little soil as necessary to access the contact while working around any vegetation. Vegetation will not be removed to allow transects to pass through the area. If a large amount of vegetation is encountered while performing a transect, the field crew will go around the vegetation, and the location of the vegetation will be noted in the field log and transect log. The crew will continue the transect once they have passed around the vegetation. The limited project activities combined with the mitigation measures will not conflict with local policies.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Analysis:
Following the avoidance measures for sensitive and endangered species the project will not conflict with conservation plans.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA.

United States Army Corps of Engineers, Final Former Mojave Gunnery Range "C" RI/FS/RA Work Plan, January, 2008.

CDFG Natural Diversity Database reports for the Sanborn and California City South quadrants, October 15, 2007.

5. Cultural Resources

Project Activities Likely to Create an Impact:
- Investigation, by excavation with hand tools of a number of individually identified subsurface MEC/anomalies;
- Treatment of collected items, which may include MEC open detonation or within a pit; and
- Transportation of equipment.

Description of Baseline Environmental Conditions:
The project area is located within the traditional territory of the Kawaiisu/Tubatulobal people. A California Historical Resources Information System (CHRIS) records check was conducted to determine known locations of cultural resource sites and to identify areas where cultural resource surveys have been previously conducted. The project area is located within a sensitive region of the Mojave Desert in Kern County There have been 13 cultural resource surveys conducted within the project area and approximately 150 cultural resource sites have been recorded. For the most part these sites

are small lithic scatters and other temporary encampments. There are no known cultural resources that are listed in the National Register of Historic Places, the California Register, California Inventory of Historic Resources, the California State Historic Landmarks or the California Points of Historic Interest.

Little in the way of Historical period Cultural Resources have been recorded in the project area. Although not currently evaluated, the Mojave Gunnery Range itself may be considered a historical resource due to its contribution to the World War II, Korean War and the Cold War era military activities.

The proposed project area has a low to moderate potential to contain paleontological resources. Few resources have been identified in the project area.

On October 19, 2007, the results of a request for a Sacred Lands file search were received from the Native American Heritage Commission (NAHC) for the project area. The NAHC did not find resources within the project area. DTSC will send copies of this Initial Study package to each tribal contact identified by the NAHC to solicit comments from any interested tribal contact.

Analysis as to whether or not project activities would:

a. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.

Impact Analysis:
Non-intrusive and intrusive methods of field investigation will be used during the project. Non-intrusive methods, such as visual surveys and digital geophysical mapping, have a low potential for impacting cultural resources depending on what type of equipment is used to conduct the survey. Intrusive methods may impact a cultural resource if the dig area is within close proximity of a cultural resource. As noted above, every effort will be made to avoid resources once they have been identified.

A qualified archaeologist will be present to monitor activities. Intrusive methods may impact a cultural resource if the dig area is within close proximity of a cultural resource.

Prior to commencement of field activities, all on-site personnel will be briefed on the cultural, historical, and paleontological resource sensitivity of the area. Methods for minimizing potential impacts on cultural and historical resources will form an integral part of the on-site training.

Every effort will be made to identify cultural resources within the project area and to avoid them during UXO activities. However, unexpected cultural remains exist, particularly below the surface. In the event that prehistoric or historical-period archaeological resources are encountered, the location will be noted in the field log and recorded using a GPS unit (if possible). In the event that human remains are encountered during the project, the CESPL archaeologist will notify the County Coroner pursuant to Health and Safety Code section 7050.5. If Native American human remains or any associated grave goods are found, as described in the Native American Graves Protection and Repatriation Act, Section 2(3), work will cease in the area of the discovery, and the CESPL archaeologist or U.S. ACE Project Manager (PM) will be notified immediately. The CESPL archaeologist will coordinate with the appropriate state and tribal contacts. All human remains will be left in place until the appropriate action is defined.

Every effort will be made to identify paleontological resources within the project area and to avoid them during UXO activities. In the event that paleontological resources are encountered, the location will be noted in the field log and recorded using a GPS unit if possible.

Also refer to the response to item a. in Section 7., Hazards and Hazardous Materials.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.

Impact Analysis:
For the responses to items b. through d., refer to the discussion under item a., which describes protection methods and actions to be taken for inadvertent finds of potential significance.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact Analysis:
Refer to the response to items a. and b.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. Disturb any human remains, including those interred outside of formal cemeteries.

Impact Analysis:
Refer to the response to items a. and b.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

California Historical Resources Information System, Southern San Joaquin Valley Archaeological Information Center, July 10, 2007.

United States Army Corps of Engineers, Final Former Mojave Gunnery Range "C" RI/FS/RA Work Plan, January, 2008.

Native American Heritage Commission, Sacred Lands File Search Results for Proposed Mojave Gunnery Range C Remedial Study, October 19, 2007.

6. Geology and Soils

Project Activities Likely to Create an Impact:
- Investigation, by excavation with hand tools of a number of individually identified subsurface MEC/anomalies;
- Treatment of collected items, which may include MEC open detonation or within a pit; and
- Transportation of equipment.

Description of Baseline Environmental Conditions:
The region is part of the Mojave Desert geologic province, bordered to the west by the Sierra Nevada province and to the north by the Basin Ranges province, which forms a westward tapering wedge that is bounded by the San Andreas and the Garlock Faults.

The majority of the Mojave Desert province is underlain by Mesozoic granitic rocks with occasional outcrops of pre-cretaceous metasedimentary rocks and Tertiary igneous and sedimentary rocks. For the most part, Quaternary playa-like sediments can be found in the broad shallow basins. These sedimentary rocks may be locally interlayered or overlain by recent alluvium.

The predominant soil is the Garlock series, which consists of very deep, well drained soils on alluvial fans and old stream terraces. These soils formed in alluvial, derived mainly from granitic rock. In a typical profile of the series, the surface layer is a moderately alkaline, yellowish-brown loamy sand about three inches thick. The subsoil is a moderately alkaline, dark-brown sandy clay loam about 39 inches thick. Beneath this the soil is characterized as moderately alkaline, light yellowish-brown clay loam. The depth to bedrock is over 5'.

Soils of the Garlock series have a moderate rate of permeability ranging from 2.0 to 6.0 inches per hour.

The soil is very hard, which is a benefit to the airport. This condition allows heavy jet aircraft to be parked right on the soil without construction projects for concrete ramps.

Analysis as to whether or not project activities would:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

❖ Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42).

❖ Strong seismic ground shaking.

❖ Seismic-related ground failure, including liquefaction.

❖ Landslides.

Impact Analysis:
Based on site visits and findings in similar terrain, the 20 millimeter (mm) projectiles at this location are not expected to be found at depths greater than six (6) inches below ground surface. Investigation results from the GPO indicate that the smallest MEC (20mm HEI) can be reliably detected to depth of approximately 6 inches below ground surface. This detection depth is consistent with the expected penetration depth of these munitions and should be considered the investigation depth for 20mm projectiles associated with this project. The short duration and limited scope of the investigation could not affect the items of concern listed above.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Result in substantial soil erosion or the loss of topsoil.

Impact Analysis:
All excavations will be backfilled to pre-existing grade conditions using the previously excavated soil. Consequently, there will be no loss of topsoil.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Impact Analysis:
All excavations will be backfilled to pre-existing grade conditions using the previously excavated soil. Consequently, there will be no loss of topsoil, and there is no construction associated with this project. Consequently, the above-listed effects would not occur.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact Analysis:
There is no construction associated with this project.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of water.

Impact Analysis:
There will be no construction under the project.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Be located in an area containing naturally occurring asbestos (see also Air Quality, f.).

Impact Analysis:
According to the Department of Conservation, California Geological Survey map of asbestos in California, the project site is not located in a naturally-occurring asbestos area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:

U.S. Department of Transportation Federal Aviation Administration, 2004.Final Environmental Assessment for the East Kern Airport District Launch Site Operator License for the Mojave Airport, Kern County, CA

California Department of Conservation web site:
http://www.consrv.ca.gov/CGS/minerals/hazardous_minerals/asbestos/index.htm

7. Hazards and Hazardous Materials

Project Activities Likely to Create an Impact:
Investigation, by excavation, of a number of individually identified subsurface MEC/anomalies;
Treatment of collected items, which may include MEC open detonation within a pit;
Transportation of equipment; and
Movement and fueling of vehicles.

Description of Baseline Environmental Conditions:
The site currently contains limited MEC that may be active and could potentially detonate if encountered by the public.

Analysis as to whether or not project activities would:

a. Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

Impact Analysis:
Geophysical surveys will be conducted on generally parallel transects with site-specific orientation with transect spacing determined based on range type and munitions by tow-or three-person field teams using man-portable carts. A UXO escort will accompany the geophysical field teams to guide them away from potential MEC hazards. If natural/cultural monitors have not accomplished surveys during the surface visual surveys, monitors will also accompany the team to ensure environmentally sensitive locations are protected. Transect path and spacing will be dependent on ROE parcel access, terrain, and vegetation cover. Transect paths will deviate from the planned transect paths to avoid hazards and obstacles.

MEC that are identified as unsafe to handle (unacceptable to move) will be "blown in place" (BIP) to reduce hazards to the public and to UXO Technicians who locate the MEC. Prior to conducting disposal operations, an Exclusion Zone (EZ) will be established, and all non-essential personnel will be evacuated from within the EZ. Prior to priming the disposal charges, all avenues of ingress will be physically blocked by guard personnel. Radio communications will be maintained between all parties involved with the Minimum Separation Distance (MSD) closure and disposal activities at all times. Closure of the EZ will be maintained by all personnel until authorization from the Senior Unexploded Ordnance Supervisor (SUXOS), signaling completion of disposal activities, has been received. Constant vigilance will be maintained by all personnel to detect any intrusion into the EZ or over flights of aircraft bearing towards the MSD. Upon completion of disposal activities, the disposal team leader and one UXO Technician will visually inspect each disposal shot. One of these personnel will perform the visual inspection while the other stands by at a safe distance prepared to render assistance in the event of an emergency. Upon completion of this inspection, and providing that there are no residual hazards, the SUXOS will authorize continuation of site operations within the EZ, including post-BIP soil sampling if required.

Storage areas and temporary facilities for logistic support will be located in off-site compounds that provide easy access to the project location. These sites will be used to store project equipment, such as all terrain vehicles, temporary offices for personnel, and project management, dumpsters and roll-off bins for waste and UXO-related material, and a secured are for the project magazine if necessary.

Temporary fencing, erosion control, and other site specific controls may be necessary if the project base is not within an existing secured compound.

Munitions debris (MD) that is collected during the day will be staged at a single location at the site for removal at the end of the day. The collection point will be near an established access route (such as a dirt road or paved road that provides sufficient area for a vehicle to turn around). Upon completion of the day's activities, the MD shall be removed from the site and transported to the offsite bin or container designated for MD.

Vehicle fueling and maintenance of project vehicles will be conducted off-site at paved and contained areas. If a severe leak of fuel or other vehicle fluids occurs, the following procedures will be employed:

- •Berm the fuel spill site with dirt so that the fuel or fluid does not spread;
- •Apply oil-absorbing material to the spill (each vehicle will be equipped with a spill kit);
- •Report the spill to the SUXOS immediately; and
- •Remove the contaminated soil and dispose in an approved landfill.

The project includes a Health and Safety Plan that addresses potential hazards, provides requirements for personnel training and protection, and MEC handling procedures. All MEC-related activities will be conducted by trained personnel.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact Analysis:
The proposed activities should reduce the number of potential ordnance items within the study area. As these items are found during the investigation, they will need to be addressed. Risk of upset will be minimized through proper handling or BIP. The gaseous products formed by the explosion are normal constituents of the atmosphere and are readily dispersed. No measurable effect on air quality would result from the explosive destruction of ordnance within the project area by the use of open detonation. Therefore, the project related impacts to air quality would be short-term and insignificant.

The project team will coordinate with local agencies and government to insure that project activities do not inconvenience public services and their ability to provide services to the community. To limit project effects to the extent possible, the project team will follow an Accident Prevention Plan specified in the *United States Army Corps of Engineers, 2007. Draft Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA.*

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

Impact Analysis:
The project activities will not be within one-quarter mile of an existing school or proposed school. Additionally, the gaseous products formed by the explosion are normal constituents of the atmosphere and are readily dispersed. No measurable effect on air quality would result from the explosive destruction of ordnance within the project area by the use of either open detonation. Therefore, the project related impacts to air quality would be short-term and insignificant. Also refer to the responses to items a. and b. above.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

Impact Analysis:
The site is listed on the Cortese list of Hazardous Waste sites. The project serves to locate and remove MEC hazards.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact Analysis:
The site is in a remote portion of the Mojave Desert; however, in the development of exclusion zones existing emergency response plans and emergency evacuation plans will be considered and will not be impaired. The project Health and Safety Plan provides for emergency access and exit routes if needed.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

DTSC web site: http://www.dtsc.ca.gov/SiteCleanup/index/cfm

8. Hydrology and Water Quality

Project Activities Likely to Create an Impact:
There are no project activities that would affect hydrology and water quality. There is no construction, and no structures are being built. The project does not require water supplies except for drinking water to be supplied to the on site technicians and other project personnel.

Description of Baseline Environmental Conditions:
The community of Mojave is subject to flash flooding. A Flood Insurance Study prepared by the Federal Emergency Management Agency (FEMA) in 1995 attributes the flooding problems in Mojave to poorly defined channels that can shift from one flood event to the next. Overflow from poorly defined channels and inadequate culverts and drains can lead to shallow flooding, even during low-intensity storms. (FEMA, 1995, see also FIRM Panels 590 and 600 of 2075, 1994). Flooding in the area is characterized primarily as sheet flow across the alluvial fans. (Kern County, 2003e) The Mojave Range C is outside the boundaries of the 100-year flood plain. The major source of runoff in Mojave is from the Horned Toad Hills to the northwest. Alluvial fans from the base of the hills funnel runoff from the watershed area toward the community of Mojave. (Kern County, 2003e).

There are no active rivers or streams cutting through the site. Rainwater is absorbed quickly into the ground without collecting on the surface. The first discernable groundwater is found at 250 below ground surface.

Analysis as to whether or not project activities would:

a. Violate any water quality standards or waste discharge requirements.

Impact Analysis:
There are no project activities that could effect water quality or discharge waste to water; consequently, no impacts will result.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficient in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Impact Analysis:
No ground water will be used during the project; consequently, no impacts will result.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.

Impact Analysis:
There will be very few excavations per an acre. The excavations will be limited to a few cubic feet and be promptly backfilled; consequently, impacts will be less than significant.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.

Impact Analysis:
Refer to the response to item c. above.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Impact Analysis:
Runoff water will not be created by the project, nor will the project contribute substantial sources of polluted runoff.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Otherwise substantially degrade water quality.

Impact Analysis:
Refer to the response to item e. above. The project will not have the potential to degrade water quality because runoff or other water impacts will not be created.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

g. Place within a 100-flood hazard area structures which would impede or redirect flood flows.

Impact Analysis:
There is no construction associated with this project. Consequently, there will be no impacts from structures.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Impact Analysis:
As stated previously, no structures will be built, and project activities will not affect flooding potential.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

i. Inundation by sieche, tsunami or mudflow.

Impact Analysis:
Refer to the response to item h. above. The project will not create flooding potential.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
U.S. Department of Transportation Federal Aviation Administration, 2004.Final Environmental Assessment for the East Kern Airport District Launch Site Operator License for the Mojave Airport, Kern County, CA

9. Land Use and Planning

Project Activities Likely to Create an Impact:
The RI report's recommended alternatives consequences to the investigation activities may impact the decisions of some land uses. Short or long-term institutional controls may be necessary to prevent public access to land containing MEC items. In some instances, a Right-of-Entry permit may be required to enter private property to perform RI project activities. Right-of-Entry permits have been secured for some public and private properties for the planned activities thus far.

Description of Baseline Environmental Conditions:
The former Mojave Gunnery Range "C" lands are owned by Kern County, the US government, and numerous private landowners with site acreage of 20,656. A small portion of the land is used for residential housing, Six Sections are currently in use as an automobile test track and the remainder is open and used primarily for off-road recreation by local residents and seasonal sheep grazing. The acreage for kern County and private land owners is difficult to track, as land ownership is fluid and changes on a weekly basis due to active real estate trading and purchase, as well as county or bank repossessions. The total number of individual parcels within MGRC is 5092. Some of these parcels are overlapped by more than one MRA. Table 1-1 displays the amount of MGRC parcels located within the MRAs and land use by MRA.

Table 1-1. MGRC Land Use

	MRA 01	MRA 02	MRA 03	MRA 04	MRA 05	MRA 06	MRA 07	MRA 08	MRA 09	MRA 10
Government	100	212	103	149	0	0	0	0	2	43
Residential	0	0	0	0	0	0	0	0	0	1
Desert	26	12	0	10	2	1	1	2	8	0
TOTAL	18	0	0	1	1	0	7	0	0	3

The future land use at Mojave Gunnery Range "C" is expected to remain the same for the foreseeable future.

Analysis as to whether or not project activities would:

a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Analysis:

As stated above, the future land use at Mojave Gunnery Range "C" is expected to remain the same for the foreseeable future. However, the RI report's recommended alternatives consequences to the investigation activities may impact the decisions of some land uses. Short or long-term institutional controls may be necessary to prevent public access to land containing MEC items. In some instances, a Right-of-Entry permit may be required to enter private property to perform RI project activities. Right-of-Entry permits have been secured for some public and private properties for the planned activities thus far. It is expected that the project effects would be less than significant.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact Analysis:
As part of the avoidance protocols developed for this project, site personnel will be briefed on any conservation plans and ensure the plans are followed. Refer also to the Biological Resources section.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

U.S. Department of Transportation Federal Aviation Administration, 2004.Final Assessment for the East Kern Airport District Launch Site Operator License for the Mojave Airport, Kern County, CA

10. Mineral Resources

Project Activities Likely to Create an Impact:
None.

Description of Baseline Environmental Conditions:
Mineral resources include quartz monzonite, granite, gneiss, schist, and other igneous and metamorphic rocks. (Dutcher and Worts, 1963, as cited in DoD, 2002b) Despite a rich mining history in this area, current mining activities are limited to borax mining through a surface mine in nearby Boron, California.

Analysis as to whether or not project activities would:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Impact Analysis:
None. The project is not located in a significant mineral resource area. Therefore, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Impact Analysis:
None. The project is not located in a significant mineral resource area. Therefore, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

U.S. Department of Transportation Federal Aviation Administration, 2004.Final Assessment for the East Kern Airport District Launch Site Operator License for the Mojave Airport, Kern County, CA

11. Noise

Project Activities Likely to Create an Impact:
- Treatment of collected items, which may include MEC open detonation or within a pit; and
- Transportation of equipment.

Description of Baseline Environmental Conditions:
Local noise sources in the project area include highway and aircraft sources, recreational vehicles, and single-event noises. Traffic generally establishes the ambient sound in the community. This level varies throughout the day, based upon the intensity of other community sound sources. Aircraft sound near the project Site is mainly from two sources: the Mojave Airport and Edwards Air Force Base.

Analysis as to whether or not project activities would:

a. Expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact Analysis:
MEC detonation impacts are assessed using AC-weighted sound level. The C-weighting network weighs the frequencies between 70 hertz (Hz) and 4,000 Hz uniformly, but below and above these limits, frequencies are slightly discriminated against (U.S. Environmental Protection Agency, 1971). The C response is nearly flat in this range and is generally used for sound pressure levels (SPLs) above 85 dB. This network comes closest to indicating actual SPLs, as SPL is based on a flat response. C-weighted sound levels take into account the long-lasting effects of sharp, short-duration noise events such as an MEC detonation. The Occupational Safety and Health Administration (OSHA) and the Army have determined that the 140-dB level is the maximum exposure standard. Typical sound levels for a detonation that may occur on the project Site expected to be 90 at dB at 1,300 feet for a 75 mm M 48 detonation.

Noise levels from a detonation will vary depending upon whether the detonation is open or partially contained using U.S. ACE-approved engineering controls, such as sand bags. Engineering controls serve to reduce noise levels such that impacts to sensitive receptors would be affected to a lesser degree or not all. MEC that is safe to move will be

transported to a U.S. ACE-approved on-Site location and detonated. These detonations would be individual, short-term events. No long-term changes in noise levels would result. Some noise would be created by field crew vehicles traveling between various locations throughout the project Site. There would be no permanent increase in noise level. In carrying out project activities, best management practices will be used as project controls to attenuate noise when possible. Such practices may include use of barricades.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Expose persons to or generation of excessive groundbourne vibration or groundbourne noise levels.

Impact Analysis:
As stated in a. above, sand bags will be used to reduce the impact of blasts when feasible. Some minor vibration may be felt near the detonation. Sound and vibration impacts when present will be limited in nature, few in number and temporary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.

Impact Analysis:
As stated in items a. and b. above, sand bags will be used to reduce the impact of blasts when feasible. Sound impacts when present will be limited in nature, few in number and temporary. Consequently, there will be no permanent sound level increase.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Analysis:
As stated in items a. and b. above, sand bags will be used to reduce the impact of blasts when feasible. Sound impacts when present will be limited in nature, few in number and temporary. Consequently, there will be no permanent sound level increase.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

12. Population and Housing

Project Activities Likely to Create an Impact:
None.

Description of Baseline Environmental Conditions:
The former Mojave Gunnery Range "C" lands are owned by Kern County, the US government, and numerous private landowners with site acreage of 20,656. A small portion of the land is used for residential housing, Six Sections are currently in use as an automobile test track and the remainder is open and used primarily for off-road recreation by local residents and seasonal sheep grazing. The acreage for kern County and private land owners is difficult to track, as land ownership is fluid and changes on a weekly basis due to active real estate trading and purchase, as well as county or bank repossessions. The total number of individual parcels within MGRC is 5092. Some of these parcels are overlapped by more than one MRA. Refer to Table 1-1 in the Land Use section that displays the amount of MGRC parcels located within the MRAs and land use by MRA.

Analysis as to whether or not project activities would:

a. Induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact Analysis:
The project is short term and will not affect population growth or the need for new homes or businesses in the area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Impact Analysis:
Munition response areas are near a small number of residencies in the north east boundary of the site adjacent to California City. There is a remote possibility that munition and/or MEC could be discovered in this area requiring an exclusion zone encompassing one or more of these residences. Temporary relocation of the residence while the item is rendered safe may be required but should not exceed a few hours. Consequently, there is no need for construction of replacement housing on site or elsewhere.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact Analysis:
Refer to the response to item b. above. In the event an MEC detonation event is needed, residents would only need to be relocated for a few hours while the event takes place.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

13. Public Services

Project Activities Likely to Create an Impact:
Coordination of planned detonation events with local fire personnel.

Description of Baseline Environmental Conditions:
This site is partially within California City limits and is between California City and the City of Mojave. Both cities provide basic public services, such as fire, police, and emergency services.

Analysis as to whether or not project activities would:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- ❖ Fire protection
- ❖ Police protection
- ❖ Schools
- ❖ Parks
- ❖ Other public facilities

Impact Analysis:
The project team will coordinate with local agencies and government to insure that project activities do not inconvenience public services and their ability to provide services to the community. To limit project effects to the extent possible, the project team will follow an Accident Prevention Plan specified in the *United States Army Corps of Engineers, 2007. Draft Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA.*

The project will have no effect on police protection, schools parks, or other public facilities. The fire prevention goals are to plan effectively for all potential fire suppression obstacles, effectively mitigate the disposal shot and surrounding vegetation with water, ensure prevailing winds are not going to take potential smoke toward populated areas, ensure that adequate fire suppression equipment is on site, and keep vigilant communications with the local fire department during all disposal operations.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

14. Recreation

Project Activities Likely to Create an Impact:
There is a slight chance that an MEC item discovered during the project may temporarily necessitate the enforcement of no trespassing in the exclusion zone.

Description of Baseline Environmental Conditions:
The site is comprised of private property. Off road recreation evidence is apparent and is likely conducted by trespassers.

Analysis as to whether or not project activities would:

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact Analysis:
There will be no increase in the use of existing recreational facilities related to the Site Inspection.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact Analysis:
There are no recreational facilities associated with this project.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

15. Transportation and Traffic

Project Activities Likely to Create an Impact:
None.

Description of Baseline Environmental Conditions:
The site has very few paved roads but has numerous dirt roads transecting the site. An extremely small number of people use these roads on a daily basis.

Analysis as to whether or not project activities would:

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Impact Analysis:
The site personnel will be limited to less than 10 vehicles on a daily basis and will have no effect on traffic in the area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Exceed, either individually or cumulatively, a level of service standard established by the country congestion management agency for designated roads or highway.

Impact Analysis:
The level of service will not be affected. As stated in item a. above, the site personnel will be limited to less than 10 vehicles on a daily basis and will have no effect on traffic in the area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis:
All site vehicles will adhere to established speed limits and maintain cautious speeds where limits do not exist. Site safety officers will be present to enforce strict safety standards established as part of the RI/FS/RA work plan.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. Result in inadequate emergency access.

Impact Analysis:
There are several egresses from the site. During the entire project, the site safety officer will maintain a plan for emergency access.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Result in inadequate parking capacity.

Impact Analysis:
There is no established parking with in this site. All site personnel will be instructed to park appropriately as to not restrict existing roads unless as part of an exclusion zone plan.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Impact Analysis:
No alternative transportation plans exist within the site.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

16. Utilities and Service Systems

Project Activities Likely to Create an Impact:
None.

Description of Baseline Environmental Conditions:
The site primarily consists of undeveloped desert. The North East portion of the site has improvement associated with planned residential development. Currently these improvements are under utilized.

Analysis as to whether or not project activities would:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis:
The project will not generate waste water.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis:
No new water or wastewater treatment facilities will be needed for the project.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis:
No alterations to storm water drainage facilities or expansion of existing facilities will be required for the project.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impact Analysis:
Refer to the responses to items a. through d. above, no new water facilities are needed for the project.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

Impact Analysis:
Refer to the responses to items a. through d. above, no new water facilities are needed for the project.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.

Impact Analysis:
A minimal amount of waste will be generated by the project. Any debris will be collected and properly disposed. Munitions debris (MD) that is collected during the day will be staged at a single location at the site for removal at the end of the day. Upon completion of the day's activities, the MD shall be removed from the site and transported to the off site bin or container designated for MD.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

g. Comply with federal, state, and local statutes and regulations related to solid waste.

Impact Analysis:
The minimal amount of solid waste generated as a result of the project will be properly disposed of or recycled offsite.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range "C" Kern County, CA

Mandatory Findings of Significance

Based on evidence provided in this Initial Study, DTSC makes the following findings:

a. The project ☐ has ☒ does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

b. The project ☐ has ☒ does not have impacts that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

c. The project ☐ has ☒ does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Determination of Appropriate Environmental Document:

Based on evidence provided in this Initial Study, DTSC makes the following determination:

☒ The proposed project COULD NOT HAVE a significant effect on the environment. A **Negative Declaration** will be prepared.

☐ The proposed project COULD HAVE a significant effect on the environment. However, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.

☐ The proposed project MAY HAVE a significant effect on the environment. An **Environmental Impact Report** is required.

☐ The proposed project MAY HAVE a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.

☐ The proposed project COULD HAVE a significant effect on the environment. However, all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier Environmental Impact Report or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

Certification:

I hereby certify that the statements furnished above and in the attached exhibits, present the data and information required for this initial study evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Preparer's Signature		Date
Ed Walker	Project Manager	(916) 255-4988
Preparer's Name	Preparer's Title	Phone #

Branch or Unit Chief Signature		Date
Donn Diebert	Open Base/FUDS	(916) 255-3728
Branch or Unit Chief Name	Branch or Unit Chief Title	Phone #

ATTACHEMENT A

REFERENCES

1. California Department of Conservation web site:
http://www.consrv.ca.gov/CGS/minerals/hazardous_minerals/asbestos/index.htm

2. California Environmental Protection Agency, Air Resources Board, 2000, EPA, 2003b and Kern County, 2003b

3. California Department of Fish and Game, Natural Diversity Database reports for the Sanborn and California City South quadrants, October 15, 2007

4. California Historical Resources Information System, Southern San Joaquin Valley Archaeological Information Center, July 10, 2007.

5. DTSC web site: http://www.dtsc.ca.gov/SiteCleanup/index/cfm

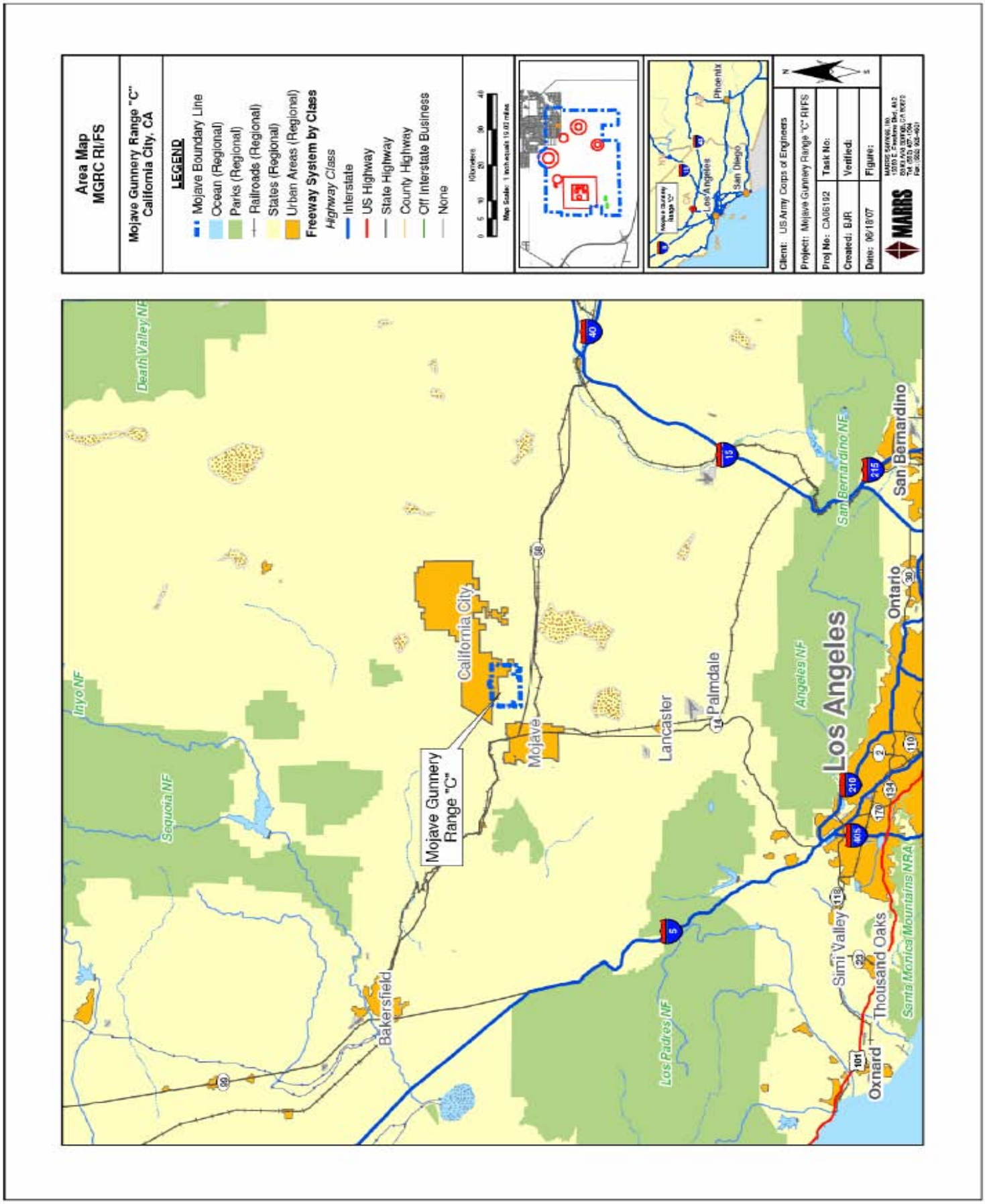
6. Native American Heritage Commission, Sacred Lands File Search Results for Proposed Mojave Gunnery Range C Remedial Study, October 19, 2007.

7. Personal observation of the site, Mr. Ed Walker, Project Manager, DTSC.

8. U.S. Department of Transportation Federal Aviation Administration, 2004.Final Environmental Assessment for the East Kern Airport District Launch Site Operator License for the Mojave Airport, Kern County, CA

9. United States Army Corps of Engineers, 2007. Draft Final Remedial Investigation Feasibility Study Work Plan, Former Mojave Gunnery Range “C” Kern County, CA

10. United States Army Corps of Engineers, Final Former Mojave Gunnery Range “C” RI/FS/RA Work Plan, January, 2008.


Area Map
MGRC RI/FS
Mojave Gunnery Range "C"
California City, CA
LEGEND
Mojave Boundary Line
Ocean (Regional)
Parks (Regional)
Railroads (Regional)
States (Regional)
Urban Areas (Regional)
Freeway System by Class
Highway Class
Interstate
US Highway
State Highway
County Highway
Off Interstate Business
None
Kilometers
Map Scale: 1 inch equals 10.00 miles
Phoenix
Los Angeles
San Diego
Client: US Army Corps of Engineers
Project: Mojave Gunnery Range "C" RI/FS
Proj No: CA06192
Task No:
Created: BJR
Verified:
Date: 06/18/07
Figure:
MABBS
Death Valley NF
Inyo NF
Sequoia NF
Los Padres NF
Angeles NF
San Bernardino NF
Santa Monica Mountains NRA
Mojave Gunnery Range "C"
California City
Mojave
Lancaster
Palmdale
Bakersfield
Los Angeles
Ontario
San Bernardino
Simi Valley
Thousand Oaks
Oxnard

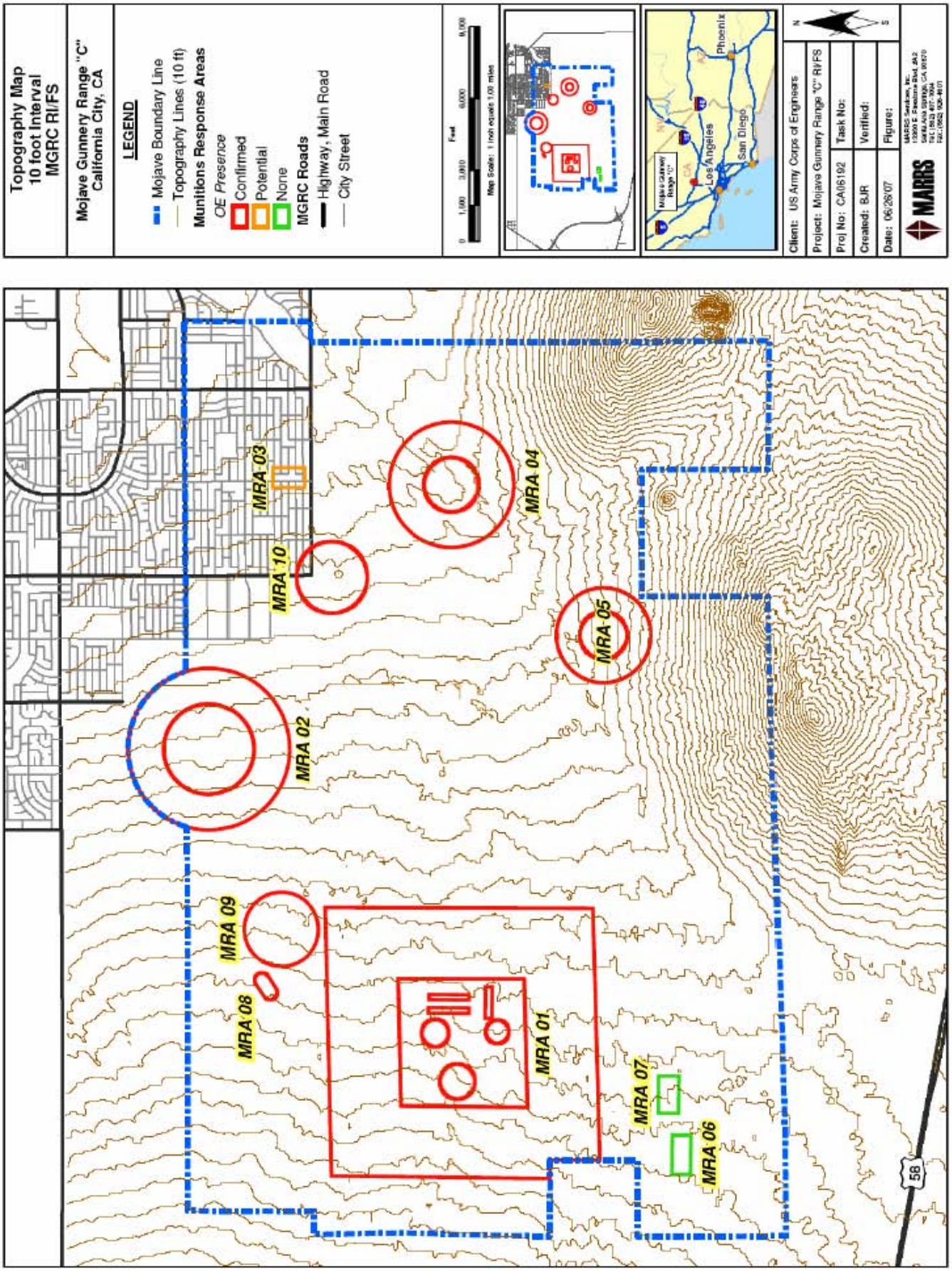


Figure 1-2. Mojave Gunnery Range "C" Topographical Map

Attachment B, Federal and State Threatened and Endangered Species List for MGRC

Species	Common Name	Habitat Requirements	Status		Potential to Occur Within Project Boundary
			CDFG	USFWS	
Gopherus agassizii	Desert Tortoise	Creosote Scrub, Saltbush, and Joshua Tree Woodlands	Threatened	Threatened	Known presence throughout project site
Spermophilus mohavensis	Mojave Ground Squirrel	Creosote Scrub and Saltbush habitats	Threatened		Known presence in project area
Deinandra arida	Red Rock Tarplant	Creosote Scrub	Rare		Potential in the eastern part of study area

State-Listed Sensitive Species List for MGRC

Species	Common Name	Habitat Requirements	Status		Potential to Occur Within Project Boundary
			CDFG	CNPS	
Aquilla chrysaetos	Golden Eagle	Forages in Desert Scrub and nests in cliffs, etc	SC		May forage in the study area
Athena cunicularia	Burrowing Owl	Most habitats	SC		Recorded in Project area
Falco mexicanus	Prairie falcon	Primarily associated with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub. Requires sheltered cliff ledges for cover and nesting.	SC		High (incidental--forage, fly-over), Moderate (nesting)
Lanius ludovicianus	Loggerhead shrike	Occurs in Creosote Scrub	SC		Known in Project Area
Taxidea taxus	Badger	Recorded in Project Area	SC		
Toxicostoma crissale	*Crissale thrasher*	Occurs primarily in open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats.	*SC*		*Known in Project area*
Toxostoma lecontei	Le Conte's thrasher	Occurs primarily in open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats.	SC		Moderate.
Vulpes Macrotus	*Desert Kit fox*	*Occurs in all habitats in study area*	*SC*		*Probable*
Antrozous pallidus	Pallid Bat	Most common in open, dry habitats with rocky areas for roosting. Roosts in caves, crevices, mines, and occasionally hollow trees and buildings	SC		Moderate
Nyctinomops femorosaccus	Pocketed free-tailed bat	Rare in California. Prefers rocky desert areas with high cliffs or rock outcrops.	*SC*		Moderate

Species	Common Name	Habitat Requirements	Status		Potential to Occur Within Project Boundary
			CDFG	CNPS	
Corynorhinus townsendii	Townsend's big eared bat	Prefers mesic (requires a moderate amount of moisture) habitats. Roosts in caves, tunnels, mines and buildings.	*SC*		Moderate
Phacelia nahisana	Charlotte's phacelia	Occurs in Creosote Scrub		1E	Recorded in project area
Mentzelia tridentata	Creamy blazing star	Occurs in Creosote Scrub		2	Recorded in project area
Eschscholzia minutiflora ssp twiisselmannii	Red Rock poppy	Occurs in Creosote Scrub		2E	Recorded in eastern portion of the site
Calochortus striatus	Alkali mariposa lilly	Occurs in playas and saltbush habitat		1E	Low potential on site
Eriophyllum mohavense	Barstow Woolly sunflower	Occurs in Creosote Scrub habitat		1B	May be in project area

Note: sc = species of concern;